

the bark was still clinging to the tree and the wood was sound. In this same locality, on about 40 acres, there were many trees of large size, all standing, but trees of other species were nearly all cut down, leaving almost a pure forest of the Cypress. Hundreds and thousands of Cypress seedlings were springing up all over the place and especially about the base of the trees. I noticed where a tree had fallen that a large semicircle of seedlings grew about the crown for quite a distance around but not near the center of the tree. This is due to the fact that the lower branches die leaving the top branches covered with fruit and when the tree falls the seeds are sown broadcast from the top.

All the Cypress trees of the Mendocino County coast grow on the "prairie" or "plains" region or in the forest adjoining the "plains". The bark is thin and gray in the larger trees but in the smaller trees it is brown and more fibrous. The bark seems to be laid on in strips and peels easily this time of the year. The bark remains intact while the tree lives but peels naturally after death. The wood splits easily and when dried out makes a good fire wood. The sap wood is from 1½ in. to 2½ in. thick in the larger trees.

Fort Bragg, January, 1914.

FROM SAN DIEGO TO THE BAY OF ALL SAINTS, LOWER CALIFORNIA, AND BACK.—NOTES OF A BOTANIST VISITING MEXICAN SOIL.

C. C. PARRY

A favorable opportunity recently offering to extend my observations, made nearly a third of a century ago in connection with the Mexican Boundary Survey, across the line then marked out dividing Upper from Lower California, was eagerly embraced.¹ Accordingly, a party of five, provided with a compact botanical outfit, early during the present month found themselves en route to a little-known district of our neighbor Republic. Unfortunately, political boundaries do not often indicate natural divisions of country, and not till we encountered, in the broad Tiajuana Valley, the Mexican Custom House officials, could we realize that we were entering a foreign land. Possibly for the reason that the botany of the route was clearly cosmopolitan, we were permitted to pass with slight in-

¹ On this expedition there was collected a large amount of new material which has since become classical. The major-domo of the party was H. C. Orcutt of San Diego, assisted by his son, C. R. Orcutt. Here it was that the younger Orcutt acquired, under the influence of Dr. Parry, an interest in collecting plants and turned plant collector for life. Another member of the party was C. G. Pringle, a prince of plant-collectors, whose name was well-known to botanists everywhere.

The Orcutts were Sabbatarians and when it came the Lord's Day they proposed, as a matter of course, that neither man nor beast should travel. A fifth member of the party drew a gun and forced the Orcutts to proceed. It is unnecessary to say that neither the high-minded Parry nor the considerate and friendly Pringle had anything to do with this coercion.

Dr. Parry's narrative of this 1882 Todos Santos expedition has, we believe, never been published in any scientific magazine or journal, botanical or otherwise.—W. L. JEPSON.

terruption, the Mexican Administrator, on a brief explanation of our scientific objects, assuring us that the whole country was freely open to our investigation without further molestation. This same Tiajuana Valley, which has its outlet within the limits of the United States, affords the natural inlet to the whole lower country, its diverging branches draining the higher mountain slopes of the interior, and working its devious way among the irregular rocky ridges to the south. Along its lower course there seems to be a considerable body of agricultural lands adapted to irrigation, and the adjoining mesas would, no doubt, produce excellent fruits with the ordinary care applied to this class of products; in fact, the natural vegetation shows no difference to that which has yielded such rich results to northern enterprise; give it the intelligent population, the vigorous arm and restless enterprise of an Anglo-Saxon civilization, and it would not be long before its actual capacities would be developed. In this aggressive movement, however, of occupying new countries, the miner's pick generally precedes the farmer's plow, and it is to supply the demands of this adventurous class, that the more slow, plodding agriculturist occupies the land. One of the first results of mining enterprise is seen in the construction of roads to render the country accessible, and it was along the most traveled of these, leading southeast to the interior mining town of San Rafael, that our route lay.

After leaving the main valley our road passed over a succession of steep clay hills, bedded with a more or less luxuriant growth of native vegetation, in which patches of bright yellow flowers were conspicuous, which on a distant view might be taken for ripening grainfields; along the roadsides were extensive thickets of formidable cholla cactuses, interspersed with clumps of the Spanish bayonet (*Yucca baccata*), which served to keep in mind the true desert features. Only in the spring time, as we saw it, could anything approaching verdure be noticed in the near or distant scenery. The irregular divides lead down on the opposite slope, to valleys more or less extensive, along whose course the occasional presence of living water allows a limited settlement, generally indicated by small patches of grain, and scattering groups of cattle and horses, which latter comprise the available wealth of the country. The exclusive possession of the limited water supplies naturally controls the entire adjoining slopes of desert land, only fit for scant pasturage in the rainy season. With progress inland an increased elevation is apparent in a cooler atmosphere and more scant vegetation, still, however, maintaining its Californian character. The country becomes more rugged, the mountain slopes more rocky, and the hills steeper. We passed on the third day the "valley of palms", without, however, seeing anything but the dried stumps and withered remains of this Oriental vegetation, which would otherwise have given an interesting feature to the landscape. The species here met with is identical with the desert palm (*Washingtonia filifera*), which here makes its first appearance on the eastern slope of the mountain range.

A little beyond the elevated plain of Vallecito, now occupied by an American named Ryerson, we leave the main road leading to San Rafael, turning in a more direct southerly course toward the ocean. Here we encounter, in small upland valleys, attractive groves of live oak (*Quercus agrifolia*), and the hill slopes are adorned with a small ash tree of shrubby growth, properly designated as the "flowering ash", being closely allied to the manna-producing ash of Europe and the Orient. This arborescent species, then in the full glow of its glossy foliage and conspicuous white flowers, occupying the most bare arid slopes, would seem to be specially adapted to ornamental cultivation, though its timber product would be necessarily quite scant.

Descending again toward the sea, a milder atmosphere and increasing dampness again serve to freshen the vegetation, and we pass luxuriant growths of peculiar shrubbery, including sumac, California lilac (*Ceanothus*) and a beautiful willow-leaved manzanita not known farther north. Here, also, occurs a horse-chestnut² apparently different from the California species, being smaller and of more bushy growth; likewise an unknown shrub allied to *Euonymus*. Thence by a rapid descent we reach the ocean shore at All Saints Bay, where, at a place called Sauzal, we meet with an intelligent American family named Fish, by whom we were most agreeably entertained and welcomed to the comforts of a civilized home. The bay itself is a magnificent arm of the sea lying open to the southwest, but the ocean swell being measurably broken by an intervening barrier of rocky islands, affording a ship channel on either side. The port of Ensenada is located at the southern end of the bay, six miles from Sauzal. This is the most northern accessible harbor of Lower California, is the principal port of entry for this interior country, and is a regular stopping place for the steamers running from San Francisco to Guaymas once a month. The shores of the bay are mostly a pebbly shingle beach, on which there is too much swell for small sail boats, but below Ensenada is a long stretch of sandy beach, at which boats can be safely landed, and affording a magnificent beach drive. Along these winding shores, with occasional rocky projections, seaside naturalists would find abundant opportunity for prosecuting their researches in marine life, both animal and vegetable. The distinguished Spanish navigator who, in the sixteenth century, first visited these waters, apparently having previously exhausted the catalogue of saints, concluded to corral them all in a body by naming this "Bayia de Todos Santos" (Bay of All Saints) and so the name has come down to us. This bay is historically commemorated by the modern filibustering expedition of Walker, who came very near succumbing here, more to the barrenness of the country than the military forces that obstructed his way, his forlorn and shattered forces being rescued by an American war

²This was published by Asa Gray in the Proceedings of the American Academy of Arts and Sciences (17:200,—1882) as *Aesculus Parryi*, on the basis of material sent him by Dr. Parry.—W. L. J.

vessel, to meet with a still worse fate in the more tropical wastes of Central America.

Below Ensenada is a succession of small settlements striving to maintain a precarious existence, with an increased aridity of climate and more forbidding aspects of scenery. What may hereafter be developed in the way of mines and a limited agriculture will probably await political changes, or an invasion by that modern civilizer—the railroad. It seems not a little strange that such a narrow peninsula, indented by navigable bays and washed by ocean and gulf along such an extensive shore line, should be abandoned to hopeless sterility. The adventurous history of the early Spanish missions on this coast should throw some light on the true resources of the country, and the difficulties which they encountered from hostile tribes and uncertain supplies should be measurably overcome by our modern appliances of rapid transportation. Useless as it always has been to Mexico, either as a source of internal strength or civilized development, its present scant population would seem to invite its absorption into that progressive Union that is now planted so firmly on the Pacific Coast. Then, with beacon lights blazing along her rugged coast, her harbor marked out with buoys, her interior country and mineral resources developed from ocean to gulf, we might see something more than a skeleton finger resting useless on the placid bosom of the southern sea.

Occupied with such imaginings, your correspondent, after pacing the shores of the Bay of All Saints, returned by the inland route, through San Rafael, an elevated basin 2,500 feet above the sea level. Thence by an intolerably rough road, destitute of verdure and scantily supplied with water, we again fell into our previous outward track, and terminating our pleasant and successful botanical trip by a refreshing bath in the Tiajuana hot spring, again found ourselves on American soil.

San Diego, April 22, 1882.

SOME POPULAR FALLACIES CONCERNING CALIFORNIA REDWOOD.¹

EMANUEL FRITZ

I doubt if there is a forest anywhere that receives so much public notice as our own California redwood forest. In their enthusiasm for the forest, however, many people have given their imagination so much freedom that some erroneous beliefs have developed. In the brief quarter-hour allotted to me, I can touch upon only a few of these fallacious beliefs. They are, the sizes of the trees, the age of the forest, the rate of growth of the trees and the influence of fires.

Sizes of the Trees.

So impressed are we apt to be with the huge size of individual trees, that we lose sight entirely of the greater number of smaller ones. A stranger may very easily be led to believe that the large trees predominate, and that small trees are in the minority, if present

¹ Read at the annual meeting of the Society on Feb. 23, 1929.